AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims

Claims 1-23 (canceled).

Claim 24 (Previously Presented): A method of treatment of human liver, breast, colon or rectal malignancies, comprising administering to a subject in need thereof a modified, full-length recombinant human arginase I polypeptide of 80-100% purity, which is covalently linked to at least one polyethylene glycol (PEG) molecule.

Claims 25-26 (canceled).

Claim 27 (Previously Presented): The method of treatment according to Claim 24, wherein the modified, full-length recombinant human arginase I polypeptide has an extended half-life of at least 3 days .

Claim 28 (Previously Presented): A method of treatment of human liver, breast, colon or rectal malignancies, comprising administering to a subject in need thereof a modified, full-length recombinant human arginase I polypeptide, which is covalently linked to at least one polyethylene glycol (PEG) molecule, wherein the administration of the modified, full-length recombinant human arginase I polypeptide reduces the physiological arginine level in the subject to below 10 μM for at least 3 days.

Claim 29-37 (canceled).

Claim 38 (Previously Presented): The method of claim 24, wherein the modified, full-length recombinant human arginase I polypeptide has an amino acid sequence encoded by a nucleic acid of SEQ ID NO. 8.

Claim 39 (Previously Presented): The method of claim 24, wherein the modified, full-length recombinant human arginase I polypeptide has the amino acid sequence of SEQ ID NO. 9.

Claim 40-41 (Canceled).

Claim 42 (Previously Presented): The method of treatment according to claim 24, wherein the wherein the

modified, full-length recombinant human arginase I polypeptide has an extended half-life relative to the half-life of an unmodified full-length recombinant human arginase I.

Claim 43 (Previously Presented): The method of treatment according to claim 24, wherein the administration of the modified, full-length recombinant human arginase I polypeptide reduces the physiological arginine level in the subject to below 10 μM for at least 3 days.

Claim 44 (Previously Presented): The method of treatment according to claim 28, wherein the wherein the modified, full-length recombinant human arginase I polypeptide has a second phase half-life of at least about 21 days *in vivo*.

Claim 45 (Previously Presented): A method of treatment of human liver, breast, colon or rectal malignancies, comprising administering to a subject in need thereof a modified, full-length recombinant human arginase I polypeptide comprising the amino acid sequence of SEQ ID NO: 9 which is of 80-100% purity, covalently linked to at least one polyethylene glycol (PEG) molecule, and has an extended half-life of at least 3 days.

Claim 46 (Previously Presented): The method of treatment according to claim 45, wherein the administration of the modified, full-length recombinant human arginase I polypeptide reduces the physiological arginine level in the subject to below 10 μM for at least 3 days.